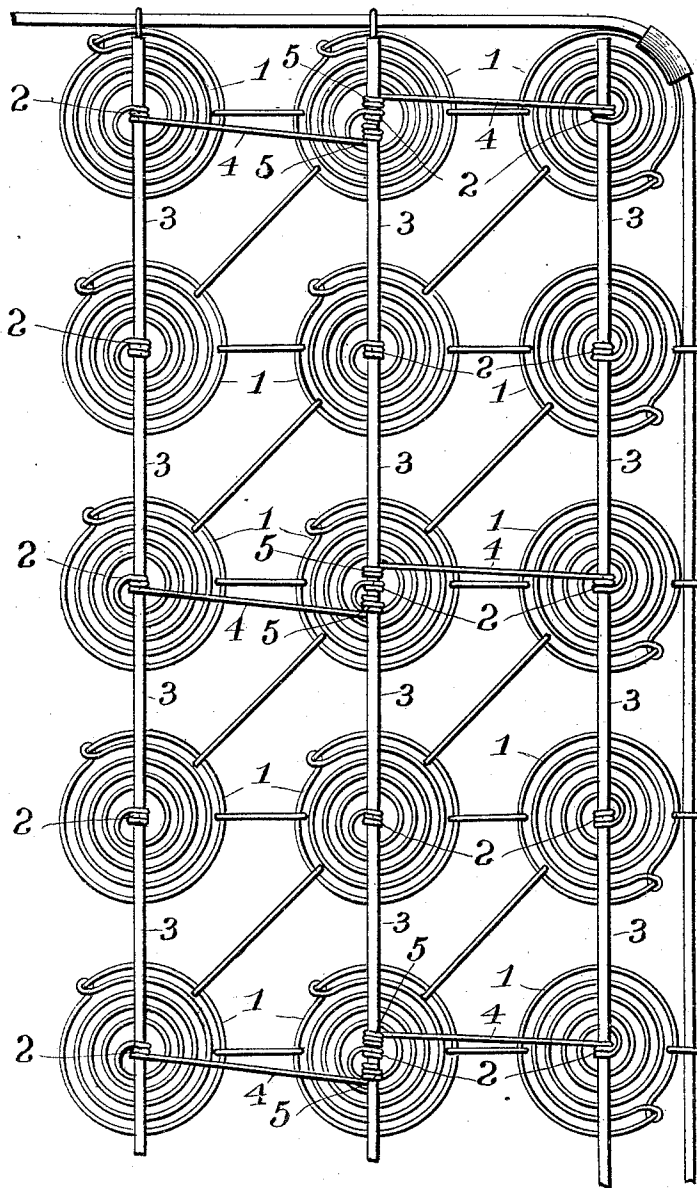


(No Model.)

G. W. ALMSTEAD & W. L. FORD.
BED SPRING.

No. 460,276.

Patented Sept. 29, 1891.



WITNESSES:

J. Finch.
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UNITED STATES PATENT OFFICE.

GASTON W. ALMSTEAD AND WILSON L. FORD, OF BRIDGEPORT,
CONNECTICUT.

BED-SPRING.

SPECIFICATION forming part of Letters Patent No. 460,276, dated September 29, 1891.

Application filed July 30, 1891. Serial No. 401,185. (No model.)

To all whom it may concern:

Be it known that we, GASTON W. ALMSTEAD and WILSON L. FORD, both citizens of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Bed-Springs; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention has reference to certain new and useful improvements in the construction of spring-beds, but particularly refers to the manner of securing the lower ends of the coil-springs, so that the latter will not roll sidewise when supporting a weight.

Our invention pertains to that class of bed-springs which are composed of helical coils of wire, the apices whereof are fastened to rods, which extend lengthwise of the bottom of the bed; and our invention consists in securing said apices by means of brace-bars integral with the latter and fastened to neighboring rods.

In the accompanying drawing we have shown a bottom view of a portion of a bed-spring constructed in accordance with our improvement.

Our invention has nothing to do with the construction of a bed-spring, except in the manner of securing the coil-springs as against sidewise roll, and we will therefore only refer to the springs and the rods to which they are attached.

1 are the helical springs, whose apices are coiled at 2 around rods 3, which latter extend lengthwise of the bed below each series of springs.

If the springs were simply coiled around the rods with no other means of support, as has been heretofore prevalent in the manufacture of bed-springs, any weight superimposed upon the bed would cause the springs to roll at the point 2 on the rods and the helical coils would interfere and frequently interlock. This disadvantage we overcome by forming integral with the coils 2 of alternate springs 1 brace-bars 4, which are extended

straight across the neighboring rods 3 and secured to the latter, as at 5. It will thus be seen that the apices of alternate springs will be held rigidly by the brace-bars, and that consequently the springs can have no sidewise roll on the rods. Of course these brace-rods may be extended from the apices of every spring; but this is not necessary, since the securing of alternate springs in the manner above set forth accomplishes the result aimed at; also, we have ascertained that fairly good results could be obtained by securing the apices of every third spring by means of brace-bars, as above set forth, and we therefore do not wish to be limited to the application of our improvement to alternate springs, the gist of our invention resting in the broad idea of the brace-bars integral with the apices of the helical springs and secured to the neighboring rods.

We claim—

1. A bed-spring comprising a series of parallel rods and a series of helical springs whose apices rest upon and have extensions wrapped about one set of rods, the extensions from alternate springs passing over to and being wound around an adjacent set of parallel rods, as set forth.

2. A bed-spring comprising a series of parallel rods, a series of helical springs whose apices rest upon and have extensions wrapped about one set of rods, the extensions from alternate springs passing over to and being wound around an adjacent set of parallel rods, a series of brace-bars arranged at right angles to the parallel rods and attached to the helical springs, and another series of brace-rods arranged diagonally to the parallel rods and also connecting the springs, and means for securing the outer series of springs to the bed-frame, as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

GASTON W. ALMSTEAD.
WILSON L. FORD.

Witnesses:

F. W. SMITH, Jr.,
J. S. FINCH.